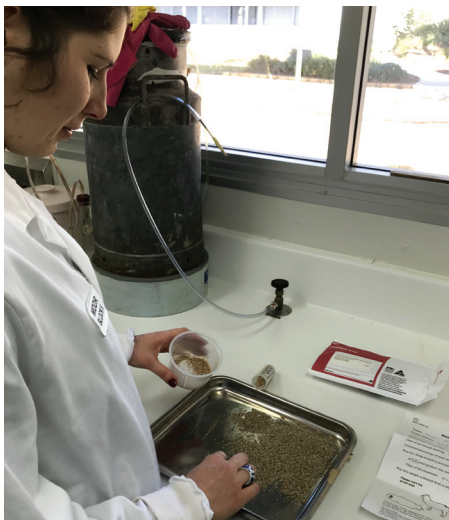


HOW WELL PERFORMING ARE YOUR BLOWFLY AND LICE TREATMENTS?

Do you know what chemical groups are effective against blowflies or lice in your flock? A

project to determine the insecticide resistance of these two ectoparasites in Australia is under way, thanks to funding from AWI and the NSW Department of Primary Industries.

Woolgrowers can get directly involved in the project too, by supplying maggots from fly struck sheep or fleeces from lousy sheep.



NSW DPI researcher **Monica Suann** at the **Elizabeth Macarthur Agricultural Institute** with a sample of maggots (left) and assaying lice (right)



AWI and NSW Department of Primary Industries (DPI) are jointly funding a project to determine insecticide resistance profiles of the two major ectoparasites of the Australian wool industry, the Australian sheep blowfly and the sheep body louse, across the major wool producing regions of Australia.

“Without monitoring field populations for the presence of resistance, and adapting ectoparasite management practices accordingly, the effective life of registered chemical treatments can be reduced considerably,” said NSW DPI researcher Narelle Sales.

“The new project aims to provide producers with up to date information on the insecticide resistance status of blowflies and lice affecting their flocks to aid management decisions – with the potential to increase production, decrease production costs and extend the effective lives of these insecticides.”

As part of the project, NSW DPI researchers are therefore **seeking woolgrowers from all states** across Australia who are willing to provide blowflies and/or have lice on their property for use in the research.

PREVIOUS RESEARCH

An AWI and NSW DPI survey carried out

in 2012-14 found that 36/58 (62%) of sheep blowfly populations tested displayed low level resistance to cyromazine. The highest percentage of resistant flies in any single cyromazine resistant population was 40%. A small number of these populations (8/36 or 22%) also had flies capable of surviving the concentration of dicyclanil which will kill susceptible flies. This project also determined that these resistant flies could reduce the body strike protection period of cyromazine from 11 weeks to 8 weeks on jetted sheep.

However, as 48% of these blowfly populations were sourced from NSW, the new survey is being undertaken to cover all of the major wool production areas of Australia.

YOUR CHANCE TO GET INVOLVED

Blowflies

This current survey relies on producers collecting maggots off struck sheep on their property and sending them into the NSW DPI laboratory for testing. The researchers breed them up and will then determine the resistance of these blowflies to the insect growth regulators (IGRs) cyromazine, dicyclanil and diflubenzuron, as well as the neonicotinoid, imidacloprid; the macrocyclic lactone (ML) ivermectin; the

spinosyn spinosad, and the organophosphate (OP) diazinon.

The researchers received a small number of blowfly samples last autumn, mostly from NSW again. However, they keen to be able to provide information to individual producers as well as compile regional, state and national information. Please contact NSW DPI to request a collection kit to keep handy; the kit has reply-paid postage – see below.

Lice

In addition, this project is able to test body lice for resistance to imidacloprid, spinosad, abamectin, diazinon, diflubenzuron and the SP cypermethrin. To achieve this, researchers need to arrange the transport of a fleece from your property to the NSW DPI laboratory. The fleece needs to be off the lousiest sheep available and the more lice the better. The researchers need at least 10 lice to be visible in each wool-parting as they test them straight off the fleece. If there is an insecticide of concern, let the researchers know so they can test that insecticide as a matter of priority.

The researchers will organise shipment and have successfully carried out testing from fleeces which have been shipped from as far afield as Western Australia, so please don't be deterred. Contact NSW DPI for further details – see below.

CONTACT INFORMATION

If you are interested in supplying NSW DPI researchers with maggots from fly struck sheep or fleeces from lousy sheep, please contact:

Narelle Sales, NSW DPI
Elizabeth Macarthur Agricultural Institute
Email: narelle.sales@dpi.nsw.gov.au
Phone: (02) 4640 6446

After testing, you will receive the results for your flock. At the end of the project you will also receive the project results showing how products are performing in your region or state. The project will be completed in mid-2020.

Producer confidentiality will be maintained and all property information will be de-identified.